

MISSOURI MONTHLY VITAL STATISTICS

Provisional Statistics

From The



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Focus. . . Hispanic Pregnancies & Outcomes in Missouri: 1989-93 versus 1994-99

For the ten-year period between 1990 and 2000 the number of people of Hispanic origin living in the United States increased from 21.9 million to 35.3 million (U.S. Census Bureau). This 62 percent increase in the Hispanic population reflects a rise in the number of newborns with mothers of Hispanic origin, as well as an increase in immigration from Mexico, Central and South America, and the Caribbean. According to the National Center for Health Statistics (NCHS), total live births to Hispanic mothers went from 595,073 in 1990 to 764,339 in 1999, an increase of more than 28 percent. During the same period, live births of all origins declined by over 3 percent.

The majority of the Hispanic population in the United States are concentrated in California, Texas, New York, Florida, and Illinois. However, Hispanics are increasingly choosing to locate in other states. This is particularly true for immigrants who find in these previously less preferred locations, more and better work opportunities due to a high demand for labor.

In Missouri, where Hispanics make up the second largest minority, the Hispanic population increased from 62,702 in 1990 to 118,592 in 2000 (89.1 percent). In the 1990 census only nine Missouri counties reported more than 1,000 Hispanic residents; in the 2000 census that figure increased to 20 counties. Seven of the 20 counties are rural with less than 50,000 residents, four have between 50,000 and 99,999 residents and the remainder are counties with major cities or counties surrounding major cities.

Jackson County, with about 30 percent of the Hispanic population in Missouri, continues to be the most preferred county by Hispanics, followed by St. Louis County (12.3 percent) and St. Louis City (5.9 percent).

Over the decade of the nineties the number of live births to Missouri Hispanic mothers increased 151 percent from 946 to 2,374. By contrast, the number of births to Non-Hispanic Black (NH-Black) mothers declined 17.4 percent (13,518 to 11,161 live births), with a corresponding decline of 5.3 percent for Non-Hispanic White (NH-White) mothers (63,556 to 60,181 live births).

This report analyzes the characteristics of Missouri Hispanic and non-Hispanic live births for two periods: 1989-93 and 1994-99. Two sets of indicators were examined: selected maternal characteristics associated with newborn health (Table 1) and pregnancy outcomes (Table 2).

During the 1989-93 period, rates for Hispanic mothers were between those for NH-White and NH-Black mothers on most of the indicators listed in Table 1, with a few exceptions. Hispanic mothers were similar to NH-Whites on weight gain during pregnancy less than 15 pounds (5.6 percent vs. 5.7 percent), with NH-Blacks having the highest rate (8.4 percent) on this indicator. However Hispanic mothers were least likely among the three groups to smoke during pregnancy (12.9 percent vs. 25.3 percent for NH-Whites mothers and 20.4 percent for NH-Blacks mothers).

Some changes in these comparisons were observed during the subsequent five-year period. During 1994-

(continued on next page)

**Table 1. Resident Live Births by Selected Characteristics by Hispanic Origin of Mother:
1989-93 versus 1994-99: Missouri Resident Data**

Variables	Hispanic Origin ALL (Percent)			Non-Hispanic White (Percent)			Non-Hispanic Black (Percent)		
	1989-93	1994-99	Percent Change	1989-93	1994-99	Percent Change	1989-93	1994-99	Percent Change
Mother less than 18	6.6	6.5	-1.5	3.9	3.9	0	12.3	11.2	-8.9
Mother Education < 12 years	31.1	37.6	+20.9	17.8	16.6	-6.7	33.3	30.7	-7.8
Mother Unmarried	31.0	36.6	+18.1	20.1	24.9	+23.9	77.4	77.9	+0.6
Inadequate Prenatal Care*	21.1	19.9	-5.7	12.6	8.9	-29.4	35.3	26.2	-25.8
Birth Interval < 18 Months	16.6	12.1	-27.1	11.3	10.0	-11.5	24.0	15.4	-35.8
Birth Order, 4 or more	12.0	12.3	+2.5	8.7	9.0	+3.4	18.9	17.5	-7.4
Weight Gain < 15 Pounds*	5.6	7.4	+32.1	5.7	7.0	+22.8	8.4	9.9	+17.9
Smoked while Pregnant	12.9	8.3	-35.7	25.3	21.1	-16.6	20.4	13.9	-31.9
Medicaid Participant	34.1	49.3	+44.6	27.5	35.3	+28.4	66.3	69.0	+4.1
WIC Participant	41.6	53.4	+28.4	29.6	35.3	+19.3	63.5	68.2	+7.4
Food Stamps Recipient	20.4	16.5	-19.1	16.1	14.4	-10.6	49.9	48.3	-3.2
Live births	5,054	10,301	+103.8	305,853	357,884	+17.0	65,728	67,122	+2.1

* Fewer than five prenatal visits for pregnancies less than 37 weeks; fewer than eight visits for pregnancies 37 weeks or longer , or care beginning after the first four months of pregnancy.

* Less than 15 pounds for term singletons only.

1999, not only did Hispanic mothers continue to have the lowest percent who smoked during pregnancy, they also showed a lower rate (8.3 percent) than what was reported in the earlier period. However on the indicator for education level, Hispanic mothers surpassed NH-Blacks as the group with the highest percent (37.6) with less than a high school education.

Increases between the 1989-93 and 1994-99 period in negative risk markers and public program participation for Hispanic mothers were noted for education less than 12 years, unmarried, birth order 4 plus, weight gain less than 15 pounds, Medicaid and WIC. Smaller increases were observed for NH-White and NH-Black mothers, except for education less than 12 years and being unmarried. Both NH-White and NH-Black mothers showed a decrease in the percent with less than a high school education, but the unmarried rate of NH-Black mothers stayed about the same. NH-Black mothers were the only group to show a decrease in birth order 4 plus.

Improvement (decreases) in negative risk markers and public program participation for Hispanic mothers between 1989-93 and 1994-99 were noted for the

following: births to women less than age 18, inadequate prenatal care, birth spacing of less than 18 months, smoking during pregnancy and Food Stamp participation. However the decrease in percent with inadequate prenatal care was much greater for NH-Whites than for Hispanic mothers. Also, NH-Blacks showed greater decreases than Hispanic mothers for the following indicators: births to women less than age 18, inadequate prenatal care, and spacing less than 18 months.

Infant health outcomes are shown in Table 2 for Hispanic, NH-White and NH-Black mothers. For the period 1994-99 all reviewed infant outcomes for Hispanic mothers were more similar to the NH-White than the NH-Black group. This reveals a NH-Black/Hispanic disparity in pregnancy outcomes similar to that found between NH-Blacks and NH-Whites. The same patterns are evident for the earlier 1989-93 period.

Increases in the indicator rates for low birth weight, very low birth weight (VLBW), gestation less than 37 weeks, and small for gestational age, were noted for all groups with two exceptions. The VLBW rate for

infants born to Hispanic mothers remained constant at 1.2 percent and gestation less than 37 weeks for infants born to NH-Black mothers decreased by 4 percent from 17.7 to 17.0 percent. Increases in low birth weight-gestational age factors are partly due to increases in multi-fetal pregnancies, cesarean sections and induced labor.

Decreases in neonatal, post-neonatal, infant and fetal mortality between 1989-93 and 1994-99 were noted for all three groups with two exceptions. The Hispanic fetal death rate increased by 17 percent from 5.3 to 6.2 per 1,000 live births; also the NH-Black neonatal death rate increased 1.9 percent from 10.3 to 10.5 per 1,000 live births.

Hispanic pregnancy outcomes for first generation immigrants were compared with higher generation immigrants. Higher rates of very low birth weight (1.2 vs. 1.1 percent), low birth weight (7.3 vs. 5.4

percent), gestation less than 37 weeks (10.2 vs. 8.8 percent) and small for gestational age (10.8 vs. 10.3 percent) were observed for higher than first-generation Hispanic births. These higher morbidity outcomes did not translate into a higher infant mortality rate for higher generation than first-generation Hispanic births (2.1 vs. 12.1 per 1,000 live births). However, because of the small size of the Hispanic population in Missouri, the statistical power is not available to adequately identify differences between groups.

In summary, over the last decade the number of Hispanic births has increased by two and one-half fold, mostly because of immigration. Hispanic mothers continue to have outcomes similar to NH-White mothers and yet have rates for some risk markers more similar to NH-Black mothers. Further research with larger populations of Hispanic mothers may help to provide a better understanding of this paradox.

**Table 2. Pregnancy Outcomes by Hispanic Origin of Mother:
1989-93 versus 1994-99: Missouri Resident Data**

Variables	Hispanic Origin ALL (Percent)			Non-Hispanic White (Percent)			Non-Hispanic Black (Percent)		
	Percent			Percent			Percent		
	1989-93	1994-99	Change	1989-93	1994-99	Change	1989-93	1994-99	Change
Birth Weight <2,500 g	5.5	6.4	+16.4	6.0	6.6	+10.0	13.5	13.7	+1.5
Birth Weight < 1,500 g	1.2	1.2	0	1.0	1.1	+10.0	2.8	3.0	+7.1
Gestation < 37 Weeks	9.0	9.5	+5.6	7.9	8.7	+10.0	17.7	17.0	-4.0
Small for Gestational Age	9.5	10.5	+10.5	9.8	9.9	+1.0	17.9	18.1	+1.1
	Per 1,000			Per 1,000			Per 1,000		
Neonatal Deaths	4.9	4.7	-4.1	4.7	3.9	-17.0	10.3	10.5	+1.9
Post-Neonatal Deaths	3.2**	2.2	-31.3	2.9	2.3	-20.7	6.8	5.8	-14.7
Infant Deaths	8.1	6.9	-14.8	7.6	6.2	-18.4	17.1	16.4	-4.1
Fetal Deaths*	5.3	6.2	+17.0	5.5	5.0	-9.1	11.4	10.6	-7.0
Live Births	5,054	10,301	+103.8	305,853	357,884	+17.0	65,728	67,122	+2.1

* Fetal deaths per 1,000 live births plus fetal deaths

** Based on fewer than 20 events, therefore rate is very unstable

Provisional Vital Statistics for April 2001

Live births increased in April as 6,246 Missourians were born compared with 5,346 in April 2000. Cumulative births for the 4- and 12 months periods ending with April also increased.

Deaths decreased in April as 3,932 Missourians died compared with 4,223 one year earlier. Cumulative deaths for January - April and the 12 months ending with April also show slight decreases.

The **Natural increase** in April was 2,314 (6,246 births minus 3,932 deaths). With the increase in births and decrease in

deaths, the natural increase for the 12 months ending with April was up 17.7 percent from 20,473 in 2000 to 24,100 in 2001.

Marriages & Dissolutions of marriage decreased for all three time periods shown in the table below. In April 2,699 Missouri couples married and 2,060 divorced.

Infant deaths increased for the first third of the year, but decreased for the 12 months ending with April. For the latter time period, the infant death rate decreased from 7.8 to 7.3 per 1,000 live births.

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Item	April				Jan.-Apr. cumulative				12 months ending with April				
	Number		Rate*		Number		Rate*		Number		Rate*		
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	1999	2000	2001
Live Births	5,346	6,246	11.3	12.6	24,494	25,862	13.2	13.9	75,424	78,217	13.7	13.6	13.9
Deaths	4,223	3,932	8.9	7.9	19,935	19,877	10.7	10.7	54,951	54,116	9.8	9.9	9.6
Natural increase...	1,123	2,314	2.4	4.7	4,559	5,985	2.5	3.2	20,473	24,101	3.9	3.7	4.3
Marriages	2,926	2,699	6.2	5.5	10,981	10,284	5.9	5.5	45,153	43,028	7.9	8.1	7.7
Dissolutions	2,412	2,060	5.1	4.2	9,411	8,140	5.1	4.4	26,094	25,193	4.5	4.7	4.5
Infant deaths	43	45	8.0	7.2	194	225	7.9	8.7	585	572	7.7	7.8	7.3
Population base (in thousands)	...	...	5,595	5,642	...	...	5,595	5,642	...	...	5,515	5,563	5,611

* Rates for live births, deaths, natural increase, marriages and dissolutions are computed on the number per 1000 estimated population. The infant death rate is based on the number of infant deaths per 1000 live births. Rates are adjusted to account for varying lengths of monthly reporting periods.

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